

#### **AvenDATA GmbH**

Kaiserin-Augusta-Allee 14 10553 Berlin, Germany

Telefon: +49-(0)30/700 157 500 Telefax: +49-(0)30/700 157 599

AG Charlottenburg HRB 89998

#### www.avendata.de

Author: jh, ter Version: 1.1

Manual\_SAP\_DART\_1.1.doc

# Operating Instructions for the GDPdU-Data Media provision Using SAP DART



# **Table of Contents**

A۱	.venDATA GmbH	
1 0	Operating Instructions for SAP DART	1
2 D	Oata Extracts	2
2.1	Data Extract Log	3
2.2	Verifying Data Extracts	5
2.3	Data Extract Browser	7
3 G	Seneration of Views	8
3.1	Generating Data Views	g
3.2	Consolidating Overall Views	13
3.3	Backup as a Variant	14
3.4	Executing the View Generation	14
3.5	View Log	15
3.6	Saving Views Locally on PCs	16
4 D	Oata Extract Splitter	18
4.1	Generating Data Extract Splitter Files	18
4.2	Extract Splitter Log	20
5 O	Overview of Figures	21



# 1 Operating Instructions for SAP DART

The following explains the functions of the *SAP DART* module for the provision of GDPdU-compliant data in conjunction with the data media provision for corporate tax audits.

It all begins with the request made by a tax auditor to provide tax relevant data from the SAP system by way of the DART module.

The standard procedure of corporate tax audits involving data media provision (Z3 Acess) comprises the following tasks to be performed by the audited enterprise:

- The tax authorities request certain data, for instance the financial accounting data of accounting cycles 7980 for 2004 through 2007 (in the form of views)
  - As a rule, the views should be stipulated concretely or at least narrowed down (e.g. 0SAP\_BSEG or credit transactions)
- **2.** The views have to be defined in *SAP* based on the request made by the financial authorities
- 3. The required views are generated from the existing data extracts
- 4. The view files are saved locally and copied to a burn folder
- **5.** A portable medium (CD, DVD or external drive) with the target data folder can subsequently be generated and handed over to the tax authorities

The operation in SAP DART comprises the following key tasks:

- Loading extract(s) from the archive
- Checking the extract(s)
- Generating views
- If applicable, generating extract splitters
- Saving views locally



## 2 Data Extracts

An extract is a reflection of tax relevant data for a defined time frame, based on the accounting cycle, fiscal year and period, derived from the *SAP* productive system. The extract is closing date based. As a result, subsequent changes that occur in the SAP system are not automatically transferred to the extract. An extract provides the basis for the compilation of SAP *DART* analyses (views), which are handed over to the financial auditor.

Data extracts can be generated for several accounting cycles, but only for one fiscal year. The data can be compiled separately for individual months (periods). In addition to the modules used, a file name and a file directory must be assigned, into which the data is exported. In addition, a description of the content should be saved.

As a matter of principle, extracts should be compiled on a regular basis (annually), which the method is also recommended by the DSAG<sup>1</sup>. The point in time is contingent upon the fiscal year account closing date or on the date the audit is performed by the financial auditor. If retroactive postings are made for any fiscal year, the respective DART extract will also have to be newly generated to reflect the updates.

The extracts from accounting cycle 7980, which contains the largest volume of data, was compiled divided into accounting months (periods). The reason for performing this division was that the lack of system memory can lead to abortions during the generation of large views. The majority of the views can be generated from the annual files. For the BSEG based consolidated views the system main memory is not large enough. Same have to be compiled in individual sub-steps.

Identification of the data extracts:

- System (ZZZ)
- Client (xxx)
- Accounting cycle (xxxx)
- Fiscal year (JJJJ)
- If applicable, framework parameters, such as period (mm-mm) or 00 for the whole year

<sup>&</sup>lt;sup>1</sup> DSAG – Deutschsprachige SAP-Anwendergruppe e.V. (German Language Association of SAP Users)



- Productive or test (P/T)
- Sequential number (xx)
- Sample file name:
  - o RPC\_130\_7980\_2007\_01\_P\_01

The extract files are provided annual upon request (ticket) by the STF Team. Consequently, their generation is not included in this documentation. As a result, the point of departure is an extract that is available, from which the data for analysis is to be generated.

#### 2.1 Data Extract Log

The data extract log is the point of departure for the provision of data via DART. The extract files are available in the archive. First, they have to be imported from the archive. It is available for use only once the extract has to imported back to the SAP application server from the archive.

The data extract log displays all extracts generated so far along with their status information and supplementary information. The extracts are sorted and listed based on years and file status (deleted, archived, available or in process).

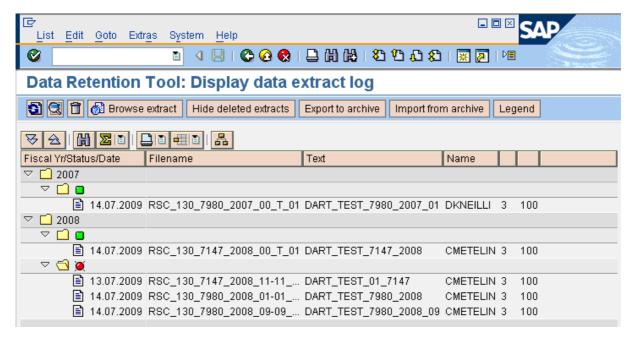


Figure 2 – Data Extract Log



The various file status scenarios are explained in the legend. The extracts can be used contingent upon their respective status (e.g. for the compilation of views) or have to be reimported from the archive prior to their use.



Figure 3 – Legend File Status

In the overview display, the logs referring to the extracts can also be accessed (logs contain detailed information on the extract files, such as name, size, status, compilation date of the file as well as information on the segment data they contain, e.g. name, data batches, size).

The extract files can also be archived, imported (provided *ArchiveLink* is activated) or deleted via the extract log.

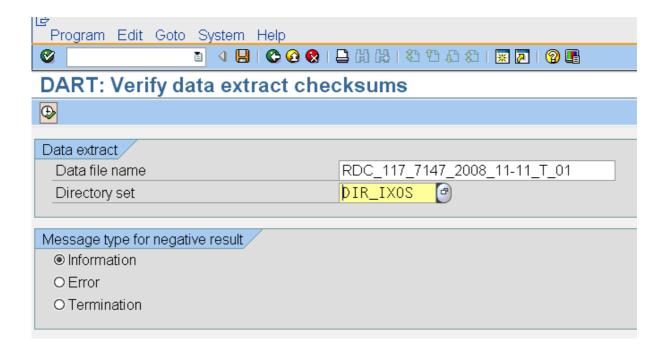
The function is accessed via the SAP-Menu in the DART folder (transaction FTW0) under Extras→Display data extract log or via transaction FTWL.



#### 2.2 Verifying Data Extracts

Once the data extracts have been generated, they should be verified. For verification purposes, *SAP DART* provides two options:

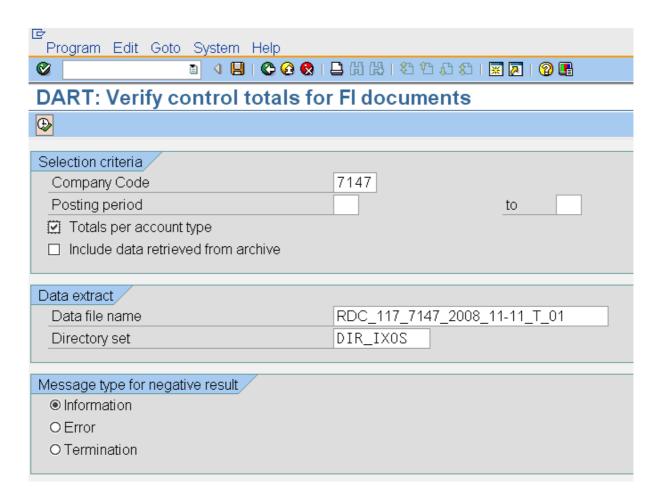
- Data checksums:
  - A checksum is calculated on the basis of the data exported. The comparison
    of this checksum with the system data corroborates that all data has been
    exported correctly, without modifications and completely.
  - o If error messages are received, these can be caused by three scenarios:
    - The check was performed in a faulty manner → perform the function again to verify
    - During the import from the archive, the extract was modified as a result of a copy error → reload the extract from the archive
    - The extract was compiled with errors already or a writing error occurred during the archiving process → have the extract newly compiled
  - The function is accessed via the SAP-Menu in the DART folder (transaction FTW0) under Extras -> Verify data checksums or via transaction FTWD.



FI control totals



- The financial accounting values in SAP (live system) can be compared for contents with the values of the data extraction.
- If discrepancies are found, the data has been modified for instance since the
  extraction in the respective period through additions or deductions (retroactive
  postings). → The extraction for the affected periods will have to be done a
  second time.
- If no discrepancies are found, the extract data is congruent with the latest financial accounting figures.
- The function is accessed via the SAP-Menu in the DART folder (transaction FTW0) under Extras→Verify FI control totals or via transaction FTWE.





#### 2.3 Data Extract Browser

The data extract browser enables users to export the segments contained in the extracts as well as their data. The included segments are displayed along with additional information (e.g. number of data batches and their sizes), sorted by categories (technical data, master and transaction data) and modules.

The function is accessed via the SAP-Menu in the DART folder (transaction FTW0) under Information system→Data extract browser or via transaction FTWF".

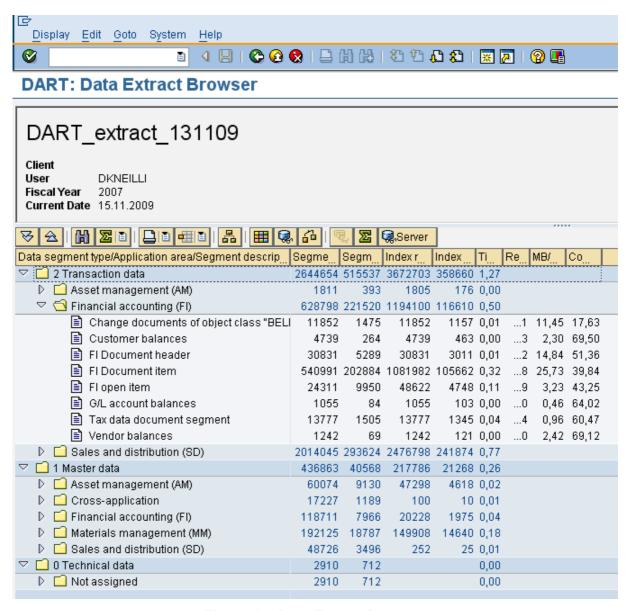


Figure 1 – Data Extract Browser



#### 3 Generation of Views

A *SAP DART* view (or View) represents an excerpt or portion of data from an extract (or multiple extracts) .e. an excerpt of all receipt items of the financial receipts. Consequently, a view is a report that is generated from the data of the extracted.

The data of a view can be displayed on the screen or exported as a text document (separated by TABs or semicolons and with column names and declarations).

The views that are exported as a file can be burned on a CD or DVD and can be made available to the tax auditor in this format.

An absolutely essential prerequisite for the generation of views is the generation of an extract.

As a rule, view files are not generated in advance and as regularly as extracts are. Instead, they are compiled on an as needed basis, i.e. if a tax audit involving the provision of data media is announced. Ideally, the tax auditor should submit a list with the views to be generated.

In the alternative, it is the obligation of the tax payer to define the views to be compiled. During the selection process it must be analyzed which of the views do contain tax relevant data that is part of the audit. The selection can also be made on the field level, because not all *SAP* defined fields are relevant for every company or being used by all businesses.

Filtering the fields improves the performance of the system while the views are being generated and also provides the tax auditor only with those fields he or she is actually supposed to be given access to.



#### 3.1 Generating Data Views

The views available in the system can be generated from data segments that have already been compiled. The standard views that did exist at the time and those provided by *SAP* were used in conjunction with the project. These are in compliance with the DSAG recommendations. At the time the project was implemented, no additional views had been or were created.

The following information is required to compile a data view:

- Data extract the compilation is based upon (name)
- Extract file storage location (directory used for generation)
- Accounting cycle(s) designated for output
- Accounting period(s) designated for output
- On screen or file output
- Name of the file (view to be generated)
- Storage location of the view file (directory)
- Overwriting or attachment mode
- Insertion of the headline
- File format (file separated by semicolon, fixed length or SAP/AIS format)
- Maximum number of data elements (ignored if generated in the background)
- Maximum size of the index file
- Access sequence for sorting

For better orientation, the name should follow a name convention analog to the extracts. The following designations were made during the project:

- Type (V)
- System (ZZZ)
- Accounting cycle (xxxx)
- Fiscal year (JJJJ)
- If applicable, filter based on period or 00 for the entire year
- Brief view name (FI...)
- Sequential number (xx)

Sample name: V\_RPC\_7980\_2007\_00\_Fl01\_01



In addition to the file name, a description must be archived. Suitable designations to use are the related extract name, a possible filter used in the generation or justification, if multiple views of the same type are generated simultaneously (can be identified based on the sequential number).

The function is accessed via the *SAP*-Menu in the *DART* folder (transaction **FTW0**) under **Information system**→**Data extract-views** or via transaction **FTWH**.

After the function is accessed, the first thing that appears is a list of the existing views. If a view is selected, the aforementioned information and filters are also selected.

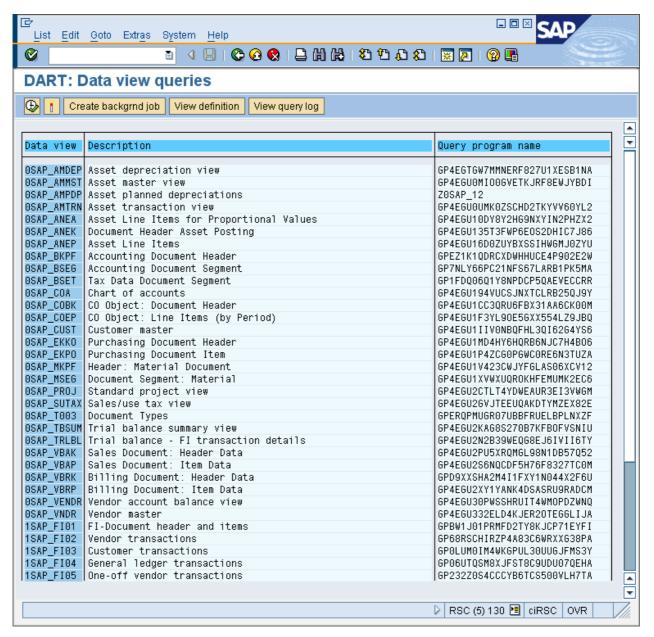


Figure 4 - View Queries



The selection criteria possible may vary depending on the respective data view; for instance the selection of asset numbers or the sorting sequence.

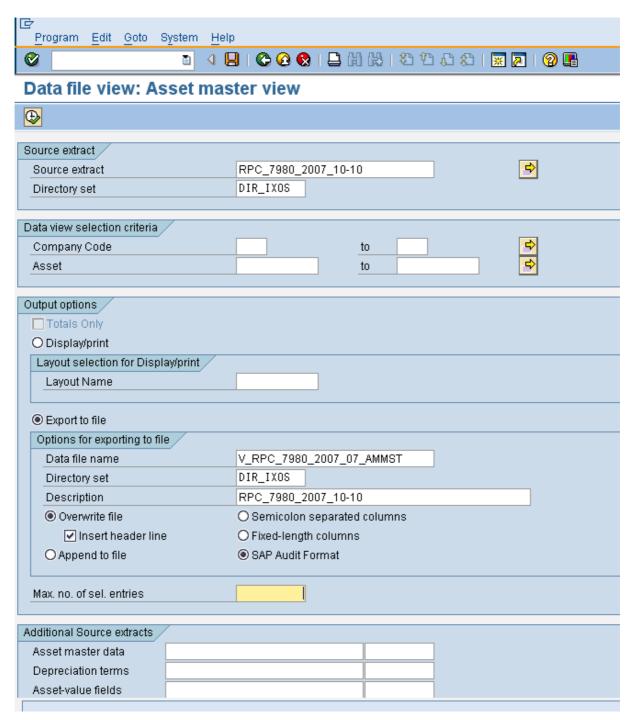


Figure 5 - Asset Master View



Modified options of another data view:

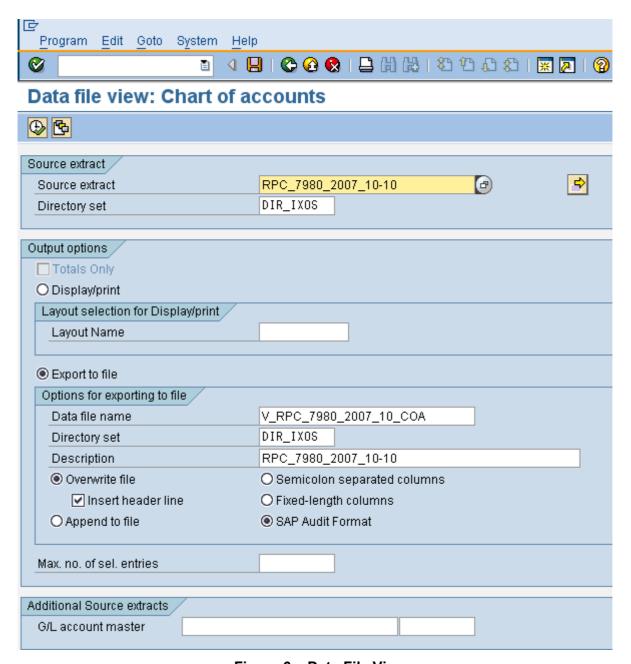


Figure 6 – Data File View



#### 3.2 Consolidating Overall Views

Given that the extract files are generated on a monthly basis and that a total of 12 or 13 individual extracts do exist for a whole year as a result, just as many views have to be generated, as these always relate to one extract. If a view is to be generated for the entire year, this can be done while the views are being generated.

The consolidation is achieved by accessing the individual views and by attaching each one to a consolidated file. The first file (as rule for month 01) is accessed and compiled as previously described. All othe files (months 02-16) must be created by selecting option **Append to file** and by keeping the view name identical.

The following rules must be complied with:

- The file name should already indicate that it is a consolidated view (e.g. ...\_01-16 ...). This will already have to be taken into account when saving the first file.
- The format used must be the same for all view files (usually SAP AIS format)
- Option Append to file must be selected so that the header line is not inserted.

This approach is recommended for smaller views (not large numbers of data batches) with transaction data, e.g. 0SAP\_ANEA, 0SAP\_ANEK.

Given that large volumes of data in transactions FI and Sales occur in accounting cyle 7980, the consolidation of views will result in very large files that hamper the performance in IDEA. This is true in particular for files BSEG, VBRK and VBRP zu.

This option should also not used for master data views, given that these reoccur every month, e.g. in 0SAP\_COA, 0SAP\_AMMST.



#### 3.3 Backup as a Variant

To facilitate the creation of the views and the entry of the required parameters, it is possible to save variants for the data views utilized that contain the entries used as examples.

If a data view is opened as described in 3.1, the pertinent variant can be loaded. Next, the extract name, target file and its commentary have to be adapted.

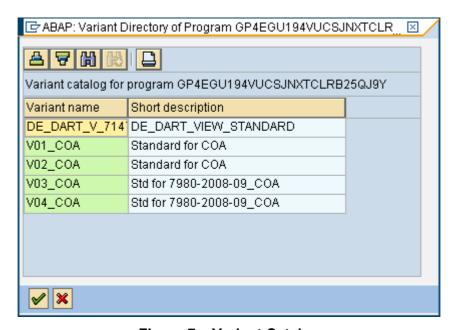


Figure 7 – Variant Catalog

# 3.4 Executing the View Generation

Given that the generation of views in SAP can in some cases take several hours, the generation should not be performed in the foreground via Execute so that time out errors can be prevented.

Consequently, the views should be started in the background (Program→Execute in background). This will conserve SAP resources and prevents aborts as a result of time outs.



#### 3.5 View Log

Just like the extract log, the view log is used to display all generated views with information pertaining to their status and additional information. The views are sorted and listed based on years and file status (deleted, archived, available or in process) and view name (not file name).

The extract files can also be archived, imported (provided *ArchiveLink* is activated) or deleted via the view log as well as saved locally, for instance for provision to the tax auditor.

The files can be viewed via **View file** or in the **ALV viewer**. The first approach opens the original file so that it is not suitable for testing data, but only for verification whether data does exist and whether the format (SAP AIS) is correct (the first 10 lines contain field definitions). If the data is to be used for random checks, function ALV is the better option, because it makes it easier to view, filter and sort the data.

As a rule, view files should not be archived. Given that they refer to an (already archived) extract and can be generated any number of times from same, the archiving of views would be redundant data backups and is not required.

The function is accessed via the *SAP*-Menu in the *DART* folder (transaction **FTW0**) under **Extras > Display view log** or via transaction **FTWN**.



# 3.6 Saving Views Locally on PCs

To prepare the generated views for the tax audit, same have to be copied from the *SAP*-System to the local work station. This is done via the view log and function **Export to local File**.

When this function is accessed the user first has the option to enter the file name manually (local path and file entry) or to select the file from Windows selection screens.

**Important**: The *SAP* window is called Select Source File; however, it actually refers to the storage location, i.e. the target file on the local computer.

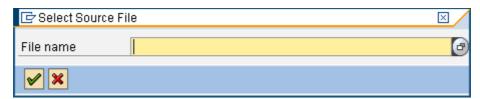


Figure 8 - Target File 1

The Windows selection screen can be used to select the target directory in the window and to individually enter the file name into the bottom field. The name is not contingent upon the file in the *SAP*-System.



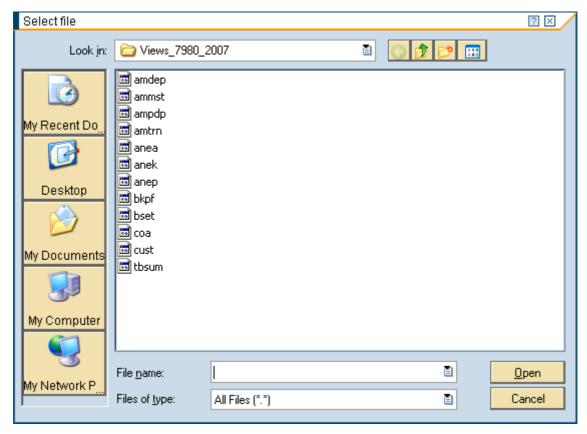


Figure 9 - Target File 2

The storage location and the export file to be generated are once again displayed in the subsequent *SAP* window. Confirming both will trigger the start of the copying process.

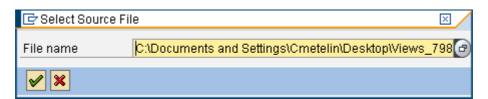


Figure 10 – Selecting the Source File

The function is accessed via the *SAP*-Menu in the *DART* folder (transaction **FTW0**) under **Extras→Display view log** or via transaction **FTWN** and function key **Export to local File**.



# 4 Data Extract Splitter

### 4.1 Generating Data Extract Splitter Files

The data extracts contain all segments configured in DART in a single file. It is not possible to expediently open an extract in IDEA to analyze specific data. Views, or alternatively the individual segments, can be used for this purpose.

One of the options available to export individual segments from the extract file into a separate file is the extract splitter. This function is used to extract certain segments from a select extract file individually, which can be entered as selection parameters.

The extract splitter solution is used if a tax auditor wants to see the data of individual segments for which a view does not exist. The reference to the use of a segment is usually derived from the file names requested, given that almost all segments begin with TXW\_ and are requested accordingly. If such a request is made, the files can be compiled using the extract splitter. This type of data request occurs primarily when the so-called Braunschweig Model is used, which is in a method used by several tax authorities and federal German states.

In the Braunschweig Model, 23 files from the DART scope (segments) have been defined for the execution of corporate tax audits. However, the selection does not claim to be complete as the scope of the audit can certainly be extended.

The following files are part of the Braunschweig Model:

- For financial accounting:
  - o TXW\_BBACC totals of the tangible asset account
  - TXW\_BBCUS customer totals
  - TXW\_BBVEN supplier totals
  - o TXW\_COSTC cost center master data
  - TXW\_CUST customer master data
  - TXW DOCTYP document types
  - TXW\_FI\_HD FI document header
  - o TXW\_FI\_POS FI document items
  - TXW GLACC tangible assets master
  - TXW\_POSTKY posting key



- o TXW\_TAXCOD tax code
- o TXW\_VENDOR vendor master
- For asset accounting:
  - o TXW\_ACCDET account determination
  - o TXW\_ANLA asset master data
  - o TXW\_ANLB amortization conditions
  - o TXW ANLC asset value fields
  - TXW\_ASSCLA asset classes
- If they exist, the following are also included:
  - TXW\_BUSA business divisions
  - o TXW\_CNTRY countries
  - o TXW\_COMPC accounting cycle master
  - TXW\_COSTEL cost types
  - o TXW IUNIT units
  - TXW\_PRCTR profit center master

To be able to use the function, the following information must be selected:

- Data extract (name) the selection is based on
- Storage location of the extract file (directory used during the generation)
- (Randomly selected) prefix for the target file designation
- Storage location of the target file (directory)
- Insertion of the header line
- File format (file separated by semicolons, fixed length or SAP/AIS format)
- Selection of the segment files to be generated (at least one segment file)

The function is accessed via the *SAP*-Menu in the *DART* folder (transaction **FTW0**) under **Utilities→Data extract-splitter** or via transaction **S\_P6D\_40000027**.



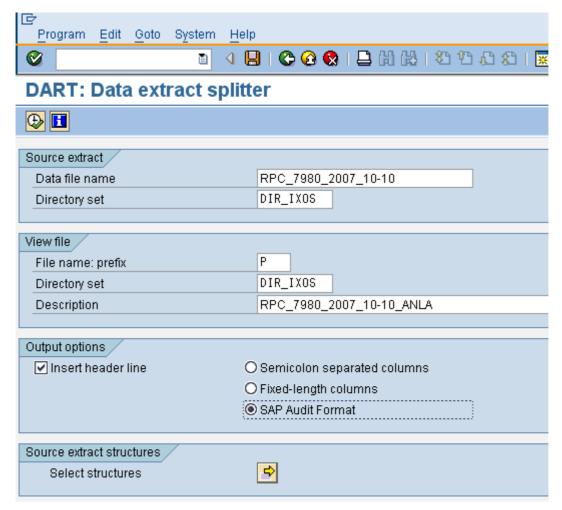


Figure 11 - Data Extract Splitter

# 4.2 Extract Splitter Log

Just like in the extract and view log, the data extract splitter log is used to display all generated splitter files along with pertinent status information and other information. The files are sorted and listed based on years and file status (deleted, archived, available or in process).

The extract files can also be archived, imported (provided *ArchiveLink* is activated) or deleted via the extract log or saved locally, for instance to make them available to the tax auditor.

The function is accessed via the SAP-Menu in the DART folder (transaction FTW0) under Extras→Display extract splitter log or via transaction S\_P6D\_40000025.



# 5 Overview of Figures

Figure 2 – Data Extract Log	3
Figure 3 – Legend File Status	4
Figure 1 – Data Extract Browser	7
Figure 4 – View Queries	10
Figure 5 – Asset Master View	11
Figure 6 – Data File View	12
Figure 7 – Variant Catalog	14
Figure 8 – Target File 1	16
Figure 9 – Target File 2	17
Figure 10 – Selecting the Source File	17
Figure 11 – Data Extract Splitter	20